

# MODIFICATION OF VIQUIPÈDIA ARTICLE CICUTA VIROSA

Alessandro Simioni Martin – June of 2021- Final degree Project  
Enllaç Viquipèdia: [Cicuta virosa - Viquipèdia, l'enciclopèdia lliure \(wikipedia.org\)](https://ca.wikipedia.org/wiki/Cicuta_virosa)



WIKIPEDIA  
The Free Encyclopedia

1

## OBJECTIVES

- To modify the Viquipèdia article about the toxic plant *Cicuta virosa*
- To report its main characteristics and its toxicity
- To search for studies on possible benefits

2

## GENERAL DESCRIPTION

- Perennial hydrophytic plant.
- It belongs to the *Cicuta* genus.
- Confused with some food.
- They are usually found in swampy areas or streams, and on grey-wooden and podzolic soils with peat.
- It is native to North America and northern central Europe, but is also found in northern areas of Russia, and Asia.



Figure 1: *Cicuta virosa* <sup>1</sup>

3

## TOXICITY

- Its main effect is the non-competitive antagonism of gamma-aminobutyric acid in the central nervous system (SNC), blocking the chloride channels of GABA receptors, causing seizures.
- Its main toxics are cicutoxin, virol A, virol B, and isocicutoxin. They are all polyacetylenic alcohols, and the most toxic of them is cicutoxin, being the rest derived from it.

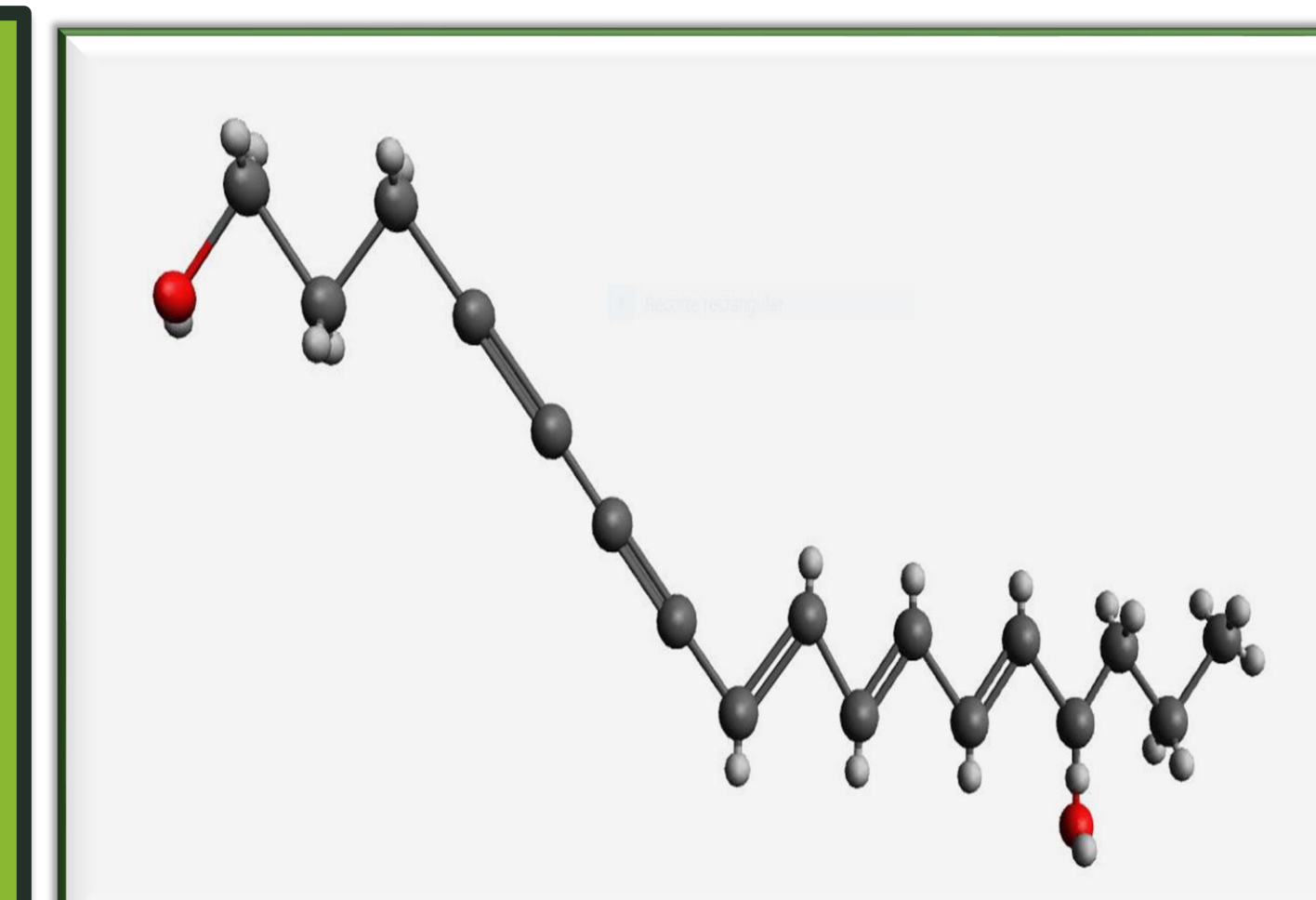


Figure 2. 3D Molecular structure of Cicutoxin <sup>2</sup>

	Cicutoxin	Virol A	Virol B	Virol C	Isocicutoxin
LD <sub>50</sub> (mg/kg) <sup>a</sup>	2,8	28,0	393,0	105,0	38,5

Table 1: LD<sub>50</sub> of the main toxics <sup>2</sup>

4

## *Cicuta virosa* L. var. *Latisecta* Celak

It is the only non-toxic variety, and the oil also has antifungal properties.

5

## CONCLUSIONS

- Genus different from *Conium maculatum*, belonging to the group of water hemlocks.
- It is easily confused with various foods, hence its accidental poisoning.
- Causes a clonic and tonic convulsions, highlighting the toxic cicutoxin.
- The result of poisoning depends on the area of intake.
- Is dangerous in both people and livestock, but has a higher incidence in the latter.
- Some studies report on the antifungal activity of *Latisecta Celak* variety, and its ability as a food preservative.

6

## REFERENCES

1. Lee, Michael R; Dukan, Estela; Milne, Iain «Three poisonous plants (Oenanthe, Cicuta and Anemone) that antagonise the effect of  $\gamma$ -aminobutyric acid in human brain». Journal of the Royal College of Physicians of Edinburgh, 50, 1, 2020-03-XX, page. 80–86.
2. OHTA, Tomihisa; UWAI, Koji; KIKUCHI, Rikako; NOZOE, Shigeo; OSHIMA, Yoshiteru «Absolute stereochemistry of cicutoxin and related toxic polyacetylenic alcohols from *Cicuta virosa*» (in english). *Tetrahedron*, 55, 41, 1999-10-XX, page. 12087–12098.

## WORK PROCEDURE

Search for information on scientific websites or books

Make an index based on the bibliography obtained

Word writing and Wikipedia test page

Article modification